

IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1. (Currently Amended) An image processing apparatus for compressing and storing image data, comprising:

~~a division means~~ unit, adapted to for dividing ~~divide~~ the image data into a pixel ~~blocks~~ block, which is each pixel block being a group of a predetermined number of pixels;

~~a compression unit, adapted to compress the pixel blocks divided by the division~~ unit;

~~a generating unit, adapted to generate packets of data, each of which corresponds to a pixel block compressed by the compression unit and includes a header indicative of information regarding the pixel block;~~

~~generation means for compressing the data in the pixel block unit and sequentially generating packet data;~~

~~packet table~~ a storage means for storing unit, adapted to store the packets of data and ~~, as a packet table; indicating a storage address of packet data corresponding to each pixel block subjected to division by said division means~~ block corresponding to each packet generated by the generating unit; and

~~a setting unit, adapted to set information, indicating whether a second pixel block corresponding to a packet of interest is different from a first pixel block corresponding to a preceding packet, into the header of the packet of interest; and~~

~~a storage control means for storing unit, adapted to store the second pixel block as a part of the packet of interest~~ packet data of interest generated by said generation means and

store a storage address of the packet ~~data~~ of interest in the packet table ~~when in a case where~~
the header of the packet data of interest indicates that the second pixel block is different from
the first pixel block preceding packet data, whereas ~~when in a case where the header of the~~
packet ~~data~~ of interest indicates that the second pixel block is equal to the first pixel block the
~~preceding packet data~~, not storing the second pixel block the packet data of interest, but storing
in the packet table a storage address of the preceding packet ~~data~~ as a storage address of the
packet ~~data~~ of interest.

2. (Currently Amended) The image processing apparatus according to claim 1,
wherein the first pixel block preceding packet data ~~is a packet corresponding to a pixel~~
~~block immediately precedes preceding to the second pixel block packet data of interest.~~

3. (Currently Amended) The image processing apparatus according to claim 1,
wherein the packets of data generated by the generating unit ~~packet data stored by said~~
~~storage control means~~ and the packet table are stored in the storage unit as one file.

4. (Currently Amended) The image processing apparatus according to claim 1,
wherein the packet table includes a flag indicative of whether or not to refer to an address
of another packet ~~data~~ as a storage destination of a packet data corresponding to a the pixel
block of interest.

5. (Currently Amended) An image processing method of compressing and storing
image data, comprising:

a division step, of dividing the image data into a pixel blocks block, each pixel

block being which is a group of a predetermined number of pixels;

a generation compression step, of compressing the data in the pixel block unit and sequentially generating packet data blocks divided in the division step;

a generating step, of generating packets of data, each of which corresponds to a pixel block compressed in the compression step and includes a header indicative of information regarding the pixel block;

a packet table storage step of storing, as a packet table, a storage address of packet data corresponding to each pixel block subjected to division at said division step; and

a setting step, of setting information, indicating whether a first pixel block corresponding to a preceding packet is different from a second pixel block corresponding to a packet of interest, into the header of the packet of interest; and

a storage control step, of storing the second pixel block as a part of the packet of interest packet data of interest generated at said generation step and a storage address of the packet data of interest in a storage unit the packet table when in a case where the header of the packet data of interest indicates that the second pixel block is different from the first pixel block preceding packet data, whereas when in a case where the header of the packet data of interest indicates that the second pixel block is equal to the first pixel block the preceding packet data, not storing the second pixel block the packet data of interest, but storing in the packet table storage unit a storage address of the preceding packet data as a storage address of the packet data of interest.

6. (Currently Amended) A computer program embodied in a computer-readable medium which, when executed, performs an image processing method of compressing and storing image data, comprising code for performing the following steps functioning as an

image processing apparatus which compresses and stores image data, comprising:

~~program codes for a division step, of dividing the image data into a pixel blocks,~~
each pixel block being which is a group of a predetermined number of pixels;

~~program codes for a generation compression step, of compressing the data in the~~
~~pixel block unit and sequentially generating packet data blocks divided in the division step;~~

a generating step, of generating packets of data, each of which corresponds to a
pixel block compressed in the compression step and includes a header indicative of
information regarding the pixel block;

~~program codes for a packet table storage step of storing, as a packet table, a~~
~~storage address of packet data corresponding to each pixel block subjected to division at~~
~~said division step; and~~

a setting step, of setting information, indicating whether a first pixel block
corresponding to a packet of interest is different from a second pixel block corresponding
to a preceding packet, into the header of the packet of interest; and

~~program codes for a storage control step, of storing the second pixel block as a part~~
~~of the packet of interest packet data of interest generated at said generation step and a~~
~~storage address of the packet data of interest in a storage unit ~~the packet table when in a~~~~
~~case where the header of the packet data of interest indicates that the second pixel block is~~
~~different from the first pixel block preceding packet data, whereas when in a case where the~~
~~header of the packet data of interest indicates that the second pixel block is equal to the~~
~~first pixel block ~~the preceding packet data~~, not storing the second pixel block in the storage~~
~~unit ~~the packet data of interest~~, but storing in the packet table storage unit a storage address~~
~~of the preceding packet data as a storage address of the packet data of interest.~~

7 through 13. (Canceled)

14. (New) The image processing apparatus according to claim 1, further comprising a buffer unit adapted to store the first pixel block,

wherein the setting unit sets the information into the header of the packet of interest by comparing the second pixel block with the first pixel block stored in the buffer unit.

15. (New) The image processing apparatus according to claim 14, wherein said buffer unit stores the second pixel block as the first pixel block in a case where a data amount of the second pixel block is less than a predetermined amount, and said buffer unit does not store the second pixel block in a case where the amount of the second pixel block is equal to or more than the predetermined amount.

16. (New) The image processing apparatus according to claim 15, wherein, if the first pixel block is not stored in the buffer unit, the setting unit sets the information, indicating that the first pixel block is different from the second pixel block, into the header of the packet of interest.

17. (New) The image processing method according to claim 5, wherein the first pixel block immediately precedes the second pixel block.

18. (New) The image processing method according to claim 5, wherein the packets of data generated in the generating step and a packet table indicating a storage address of each pixel block corresponding to each packet, are stored in the storage unit as one file.

19. (New) The image processing method according to claim 5, wherein a packet table including a flag indicative of whether or not to refer to an address of another packet as a storage destination of a packet corresponding to the pixel block of interest, is stored in the storage unit.

20. (New) The image processing method according to claim 5, further comprising a buffering step of storing the first pixel block in a buffer,
wherein the setting step includes setting the information into the header of the packet of interest by comparing the second pixel block with the first pixel block stored in the buffer.

21. (New) The image processing method according to claim 20, wherein the second pixel block is stored in the buffer as the first pixel block in a case where a data amount of the second pixel block is less than a predetermined amount, and the second pixel block is not stored in the buffer in a case where the amount of the second pixel block is equal to or more than the predetermined amount.

22. (New) The image processing method according to claim 21, wherein, if the first pixel block is not stored in the buffer, the information indicating that the first pixel block is different from the second pixel block is set into the header of the packet of interest.

23. (New) The computer program according to claim 6, wherein the first pixel block immediately precedes the second pixel block.

24. (New) The computer program according to claim 6, wherein the packets of data generated in the generating step and a packet table indicating a storage address of each pixel block corresponding to each packet, are stored in the storage unit as one file.

25. (New) The computer program according to claim 6, wherein a packet table including a flag indicative of whether or not to refer to an address of another packet as a storage destination of a packet corresponding to the pixel block of interest, is stored in the storage unit.

26. (New) The computer program according to claim 6, further comprising a buffering step of storing the first pixel block in a buffer,

wherein the setting step includes setting information into the header of the packet of interest by comparing the second pixel block with the first pixel block stored in the buffer.

27. (New) The computer program according to claim 26, wherein the second pixel block is stored in the buffer as the first pixel block in a case where a data amount of the second pixel block is less than a predetermined amount, and the second pixel block is not stored in the buffer in a case where the amount of the second pixel block is equal to or more than the predetermined amount.

28. (New) The computer program according to claim 27, wherein, if the first pixel block is not stored in the buffer, the information indicating that the first pixel block is different from the second pixel block is set into the header of the packet of interest.